

WHAT IS CLAIMED IS:

1. A method of removing fibrous shells from cereal grains, the method comprising a step of exposure of the cereal grains to a thermal shock by a cryogenic medium and a step of mechanical treatment thereof, wherein the method also
5 comprises a pretreatment step, wherein the cereal grains are subjected to a moistening treatment.
2. A method according to claim 1, wherein the moistening treatment comprises the filling of empty capillaries, which empty capillaries are present in the shell, as well as
10 between the germ and the endosperm matrix.
3. A method according to claim 1, wherein the cereal grains are allowed to steep in water during a short period of time.
4. A method according to claim 3, wherein the cereal grains are corn grains and wherein the moisture content of the
15 cereal grains is increased to the range of 23-26 % by weight, based on the weight of the moistened cereal grains.
5. A method according to claim 4, wherein the corn grains are allowed to steep in water for a period of time from 15-60 minutes.
- 20 6. A method according to claim 3, wherein after being steeped attached water is removed, which water is attached to the exterior of the grains.
7. A method according to claim 1, wherein the mechanical treatment comprises the step of coarsely milling the cereal
25 grains.
8. A method according to claim 7, wherein the milling step is carried out in a mill of the centrifuge type.
9. A method according to claim 1, wherein the method comprises a sorting step of sorting the cereal grains,
30 preceding the pretreatment step, wherein the cereal grains are separated into a fraction of whole cereal grains and a fraction, which comprises foreign matter and/or damaged cereal grains.
10. A method according to claim 9, wherein the sorting step
35 is carried out using optical recognition techniques.

11. A method according to claim 9, wherein the initial moisture content of the fraction containing whole cereal grains is determined.
12. A method according to claim 1, wherein the method
5 comprises a further separating step, wherein the cereal grains mechanically treated are separated into a fraction of decorticated cereal grains and a fraction of the fibrous shells.
13. A method according to claim 12, wherein the method
10 comprises a further step, wherein the germs are removed from the decorticated cereal grains.
14. A method according to claim 1, wherein the method comprises a second separation step, wherein the germs thus removed are separated from a germ free fraction.
- 15 15. A method according to claim 14, wherein the second separation step is carried out on an inclined and vibrating conveyor.
16. A method according to claim 1, wherein the method
20 comprises a third separation step, wherein the germ free fraction is separated into a starch fraction and a gluten fraction.
17. A method according to claim 16, wherein the third separation step is carried out using static electricity.
18. A method according to claim 1, wherein the method is
25 conducted in an inert gas atmosphere.
19. A method of preparing a slurry of starch for refining thereof into glucose syrup, wherein starch is mixed with water, which starch has been obtained by the method according to one of the claims 14-16.
- 30 20. A method of separating decorticated cereal grains, which are reduced in size and which do not contain germs, into a starch fraction and a gluten fraction, wherein the starch fraction and gluten fraction are separated from one another by static electricity.
- 35 21. A method according to claim 20, wherein the separation is conducted in an inert gas atmosphere.

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